Attitude towards E-learning among Rural and Urban School Teachers in Relation to their Self- Efficacy

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ABSTRACT:

This article is output of the study conducted to examine school teachers' attitude towards e-learning and the attitudinal difference with respect to background variables. The main findings of the study are: 1) Rural school teachers significantly score higher than urban school teachers with respect to ease of e-leaning, e-learning confidence and total attitude towards e-learning. 2) Rural school teachers score little higher than urban school teachers on e –learning interest and usefulness of e-learning. 3) Most of the rural as well as urban school teachers have medium level of self efficacy. 4) Teachers with low self efficacy are less in number in rural and urban schools.

Key words: Attitude, e-learning, self-efficacy.

Introduction

Technology has become an integral part of our society today and as pressure is exerted upon educational systems to implement new technologies, teachers' abilities to respond to change and innovation has become a key factor for success. And, this implementation of technology in the class rooms, as well as, adapting to the various technological modes to get education is primarily defined as 'e-learning' in very simple terms. Computer usage in secondary schools has made many positive impact and developments into learning. However the acceptance of ICT by schools, as with the current emergence of Online Web Learning (OWL), has been slow. However, in reference to Computer Based Learning (CBL), Woodrow (1991) points out that monitoring teacher and student attitude is significant for communal usage, acceptance and success.

Ajzen (1988) specified the word 'attitude' as an inclination which can be taught and can make people react to a matter either in a positive or negative way. Attitudes can be taught either through imminent experience or by other people. They reflect the way people think or feel and intend to react under certain circumstances.

Whitrow (1999) defined computer-related attitudes influence students' desire to use computers, their desire to enroll in computer-related subjects and courses, and their choice of career path. Students' computer-related attitudes are also directly related to their prior experiences and use of computers.

Self-efficacy, a psychological construct first proposed by Bandura in 1977, can be described as "a belief about one's own capability to organize and complete a course of action required to accomplish a specific task" (Eggen & Kauchak, 2007). Bandura (1997) defines concept as an individual's judgments of his capacity to organize and fulfill activities necessary for demonstrating a certain level of performance. Self-efficacy has been thought to be a task specific version of self-esteem (Luneburg, 2011).

Review of Related Literature

Al-Zaidiyeen, LeongLaimei and Fongsoonfook (2010) focused on study "Teachers attitudes and levels of technology use in classroom". The study concluded that teachers had a low level of ICT use for educational purpose, teachers hold positive attitudes towards the use of ICT and a significant positive correlation between teachers level of ICT use and their attitudes towards ICT was found. They purposed that ICTs use for educational purposes should be given greater consideration than it currently receives.

Kisanga (2016) conducted a study on a 258 teachers from 4 higher learning institutions obtained through stratified, simple random sampling. Questionnaires and documentary review were used in data collection. Data were analyzed using statistical package for the social sciences (SPSS). Chi-Square was performed to examine the association of variables. It was found that teachers have positive attitudes towards e-learning where computer exposure played a statistically significant contribution to their attitudes. It is recommended that training in e-learning needs to be provided to teachers to widen their understanding of e-learning. There is also a need to strengthen factors associated with teacher's positive attitudes towards e-learning. Results from this study are of particular importance to teachers and the education stakeholders in Tanzania.

Paraskeva (2008) argued that teachers who have high technology self-efficacy are "more open to new ideas and they are more willing to experiment with new methods" that can benefit students.

Bassfar Zaid (2012) conducted a study to examine the teacher's attitudes and self-efficacy towards using e-learning for teaching undergraduate students in Saudi Universities. This research used a survey method design. The target population for this study consisted of 30 lecturers selected from different universities in Saudi Arabia. The result revealed that there is no significant difference in the teacher candidate's attitudes and self-efficacy toward e-learning differ by gender and age group.

Awofala et al. (2015) conducted a study to examine the Nigerian pre-service teacher's level of computer related self-efficacy, and to determine the invariability of this with respect to the demographic variables such as age, gender and discipline of study. Among others, the results showed that construct of computer self-efficacy appeared invariant with respect to the age classification.

Objectives

1) To study attitude towards e-learning among rural and urban school teachers.
2) To study association of school teacher's self-efficacy with the rural and urban schools.
3) To study the relationship of the attitude towards e-learning with self-efficacy among rural and urban school teachers.

Hypothesis

H.1.1. There is no significant difference in rural and urban school teachers with respect to total attitude towards e-learning and its dimensions viz:

      a) E-learning interest
      b) Usefulness
      c) Ease of e-learning
      d) E-learning confidence

H.1.2. There is no association between school teacher's self-efficacy with the rural and urban school.

H.1.3. There is no relationship of total attitude towards e-learning and its dimensions with self-efficacy levels among school teachers.

Delimitations of the study

1) The area of the current research was taken from dist. Sri Muktsar Sahib (Punjab).
2) The area of the research was delimited to Rural and Urban schools of Punjab.

Methodology of the study

The present study employed survey method and is descriptive in nature. Stratified random sampling was employed for the selection of schools. 30 schools were selected for the present study. i.e. 15 from rural and 15 from urban back ground areas respectively.

A total number of 400 teachers were selected by using stratified random sampling technique. Here the units in the sample are proportional to their presence in the population. From the selected schools, 200 teachers were chosen from rural schools and 200 from urban schools. Out of 400 teachers 200 male and 200 female teachers were taken up for the study.

Tool Used

1) Attitude towards E-learning scale by Dimple Rani (2015).
2) Self-efficacy scale by Sushma Talesara and Farzana Irfan (2017).

1 Analysis of attitude towards e-learning scores of rural and urban schools

Table 1.1: Descriptive statistics and Independent sample t-test of E-Learning Interest with respect to locality of school

Variable	Group		N	Mean	S.D.	t	*Df*	*P*
E-Learning Interest	Locality of school	Rural	200	3.4707	.37452	1.675	798	.094
		Urban	200	3.4254	.39015			

Note: N= Sample size; S.D. = Standard deviation; *df*= degree of freedom; *p*= Significance value; t= Student's t- statistics value

Interpretation: The table 1.1 shows the average e-learning interest for the teachers from rural and urban school. It is clear from the table that average score of e-learning interest is higher for the rural school teachers as compared to urban school teachers. This difference in mean values was tested for statistical significance with the help of independent sample t-test. As evident from the table *p* value is more than assumed level of significance (0.05). Therefore, there is no significant difference in e-learning interest among teachers working in rural and urban schools of Punjab.

Hence, null hypothesis i.e. H1.1 there is no significant difference in rural and urban school teachers with respect to e-learning interest is accepted.

Table 1.2: Descriptive statistics and Independent sample t-test of usefulness of e-learning respect to locality of school

Variable	Group		N	Mean	S.D.	T	*Df*	*P*
Usefulness of e-learning	Locality of school	Rural	200	3.4077	.33013	1.611	798	.108
		Urban	200	3.3714	.30546			

Note: N= Sample size; S.D. = Standard deviation; *df*= degree of freedom; *p*= Significance value; t= Student's t- statistics value

Interpretation : The table 1.2 depicts the usefulness of e-learning for the teachers from rural and urban schools teachers. It can be seen from the table that average score of usefulness of e-learning is higher for rural school teachers as compared to the urban school teachers. Independent sample t-test as performed to test its statistical significance. As it is depicted from

the table that *p* value is greater than assumed level of significance (0.05). Therefore, there is no difference in usefulness of e-learning in rural and urban schools teachers of Punjab.

Hence, null hypothesis H1.1 i.e. there is no significant difference in rural and urban school teachers with respect to usefulness of e-learning is accepted.

Table 1.3: Descriptive statistics and Independent sample t-test of ease of e-learning with respect to locality of school

Variable	Group		N	Mean	S.D.	t	*Df*	*P*
Ease of e-learning	Locality of school	**Rural**	200	3.2703	.34781	3.645	798	.000
		Urban	200	3.1788	.36186			

Note: N= Sample size; S.D. = Standard deviation; *df*= degree of freedom; *p*= Significance value; t= Student's t- statistics value

Interpretation: The table 1.3 shows the average ease of e-learning for the teachers from rural and urban school. It is evident from the table that average score of ease of e-learning is lower for the rural school teachers as compared to urban school teachers. This difference in mean values was tested for statistical significance with the help of independent sample t-test. As evident from the table *p* value is less than assumed level of significance (0.05). Therefore, there is significant difference in ease of e-learning among teachers working in rural and urban schools of Punjab.

Hence, null hypothesis H1.1 i.e. there is no significant difference in rural and urban school teachers with respect to ease of e-learning is rejected.

Table 1.4: Descriptive statistics and Independent sample t-test of E-Learning confidence with respect to locality of school

Variable	Group		N	Mean	S.D.	t	*Df*	*P*
E-Learning confidence	Locality of school	**Rural**	200	3.5331	.46307	3.798	798	.000
		Urban	200	3.4093	.45887			

Note: N= Sample size; S.D. = Standard deviation; *df*= degree of freedom; *p*= Significance value; t= Student's t- statistics value

Interpretation: The above table 1.4 depicts the average of e-learning confidence for rural and urban school teachers. It is evident from the table that average score of e-learning confidence is higher for the rural school teachers as compared to urban school teachers. This difference in mean values was tested for statistical significance with the help of independent sample t-test. As shown in the table *p* value is less than assumed level of significance (0.05). Therefore, there is significant difference in e-learning confidence among teachers working in rural and urban schools of Punjab.

Hence, null hypothesis H1.1 i.e. there is no significant difference in rural and urban school teachers with respect to e-learning confidence is rejected.

Table 1.5: Descriptive statistics and Independent sample t-test of total attitude towards E-Learning with respect to locality of school

Variable	Group		N	Mean	S.D.	T	*Df*	*P*
Attitude towards E-Learning	Locality of school	**Rural**	200	3.4206	.29239	3.584	798	.000
		Urban	200	3.3462	.29431			

Note: N= Sample size; S.D. = Standard deviation; *df*= degree of freedom; *p*= Significance value; t= Students's t- statistics value

Interpretation: The table 1.5 depicts the usefulness of e-learning for the teachers from rural and urban schools teachers. It can be seen from the table that average score of total attitude towards e-learning is higher for rural school teachers as compared to the urban school teachers. Independent sample t-test as performed to test its statistical significance. As it is depicted from the table that p value is less than assumed level of significance (0.05). Therefore, there is difference in total attitude towards e-learning in rural and urban schools teachers of Punjab. **Hence, null hypothesis H1.1 i.e. there is no significant difference in rural and urban school teachers with respect to total attitude towards e-learning is rejected.**

2. Analysis of self –efficacy with respect to locality of school

Table 2.1: Association of school teacher's self-efficacy with the locality of school

Locality of school	High Self efficacy	Low Self efficacy	Medium Self efficacy	Chi-square Value	Df	P value
Rural	43	24	133	10.385	2	.006
Urban	31	16	153			

Note: df= degree of freedom; p= Significance value

Interpretation: The table 2.1 depicts school teacher's self-efficacy with the locality of school (i.e. rural and urban). It can be seen from the table that medium self efficacy is much higher than high and low self efficacy in case of rural and urban school teachers. This association of school teacher's self-efficacy with the locality of school was tested for statistical significance with the help of chi-square. As it is depicted from the table that p value is lower than assumed level of significance (0.05). So, there is an association between school teacher's self-efficacy with the locality of school of Punjab.

Hence, null hypothesis H1.2 i.e. there is no association between school teacher's self-efficacy with the locality of school (i.e. rural and urban) is rejected.

3. Relationship of attitude towards e-learning with self-efficacy among school teachers.

Table 3.1: Point Bi-serial correlation of attitude towards e-learning and it's dimensions with self-efficacy

Variables	E-Learning interest	Usefulness of e-learning	Ease of e-learning	E-learning confidence	Total attitude towards e-learning
Self – efficacy	-.181[**]	-.206[**]	-.305[**]	-.304[**]	-.326[**]

[**]. Correlation is significant at the 0.01 level (2-tailed).
[*]. Correlation is significant at the 0.05 level (2-tailed).

Interpretation: The table 3.1 shows the relationship of attitude towards e-learning with self-efficacy levels among school teachers. The relationship is tested with the point Bi-serial correlation. Self-efficacy has been found negatively and significantly related with attitude towards E-learning and it dimensions (viz E-Learning interest, Usefulness of e-learning, Ease of e-learning and E-learning confidence). Highest negative correlation was found between self-efficacy and E-learning interest.

Thus following relationship has been established with respect to following hypotheses:

H1.3. There is negative relationship of total attitude towards e-learning and its dimensions with self-efficacy levels among school teachers.

EDUCATIONAL IMPLICATIONS

❖ School Principals should motivate the senior teachers to adapt technology in teaching.

♦♦♦ Teachers with high self-efficacy should be given opportunities to visit exhibitions and inter school competitions. This activity will further help them in learning innovative technology based methodologies from their colleagues and friends.

❖ Competitions focusing on teaching social studies topic through the computers need to be organized.

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